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NATIONAL ENERGY BOARD REASONS FOR DECISION

In the Matter of an Application under the National Energy Board Act

of

TransCanada PipeLines Limited (1982 Facilities Application)

March 1982





NATIONAL ENERGY BOARD

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Part III of the National Energy Board Act

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NATIONAL ENERGY BOARD

IN THE MATTER OF the National Energy Board Act and the Regulations made thereunder; and

IN THE MATTER OF an application by TransCanada PipeLines Limited for a Certificate of Public Convenience and Necessity under Part III of the said Act, filed with the Board under File No. 1555-T1-104.

HEARD AT Ottawa, Ontario on:

16 and 17 February, 1982

BEFORE:

R.F. Brooks

J.R. Hardie

	A.B. Gilmour)	Member
PP	EARANCES:		
	J.W.S. McOuat, Q.C. T. Dalgleish)	TransCanada PipeLines Limited
	P.L. Fournier)	Canadian Petroleum Association
	J.H. Smellie)	Dome Petroleum Limited
	Y. Brisson)	Gaz Inter-Cité Québec Inc.
	M. Peterson F. Bureau)	Gaz Métropolitain, inc.
	B. Carroll)	Industrial Gas Users Association
	P.F. Scully)	Northern and Central Gas Corporation Limited
	J.H. Farrell S.L. Dunbar)	The Consumers' Gas Company Ltd.
	B. Patterson)	Union Gas Limited
	A. Macdonald L. Meagher)	National Energy Board

Presiding Member

Member

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ABBREVIATIONS

"the Act	-	11
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"the Board"

"TransCanada" "the Company" or "the Applicant"

"F.E.R.C."

"Great Lakes"

"Midwestern"

"kPa"

"km"

" mm "

"MLV"

"O.D."

- National Energy Board Act

- National Energy Board

- TransCanada PipeLines Limited

- Federal Energy Regulatory Commission

- Great Lakes Gas Transmission Company

- Midwestern Gas Transmission Company Limited

- Kilopascal(s)

- Kilometre(s)

- Millimetre(s)

- Mainline Valve

- Outside Diameter

CHAPTER 1

THE APPLICATION

On 31 August 1981, TransCanada PipeLines Limited submitted to the Board an application for a Certificate of Public Convenience and Necessity under Part III of the Act. The application, designated as the "1982 Facilities Application", requested authorization for the construction and operation of additional facilities consisting of 186.4 km of 1219 mm O.D. loop on the Western Section in the Provinces of Saskatchewan and Manitoba, 24.5 km 914 mm O.D. loop on the Emerson Extension in the Province of Manitoba, and 81.2 km of 1067 mm O.D. loop in the Province of Ontario.

On 19 January 1982, TransCanada filed an amended application in which, as a consequence of a revised forecast of sales requirements and of increased annual transportation capability on the Great Lakes system, the proposed looping in the Province of Ontario was deleted. In order to maintain a balance of the section capabilities, TransCanada would relocate three existing mobile compressors to Stations 55, 75, and 86 in the Central Section. The locations of the facilities applied for are shown in Appendix 1.

The applied-for facilities would be constructed in time to

meet sales and transportation requirements forecasted for the 1982-83 contract year. The additional facilities would also provide TransCanada with some excess capability to serve unanticipated demands occasioned by emergency situations.

The total capital cost of the applied-for facilities was estimated by the Applicant to be \$236,995,000 in 1982 dollars.

The application was heard at Ottawa, Ontario on 16 and 17 February, 1982.

CHAPTER 2

PUBLIC CONVENIENCE AND NECESSITY

2.1 Requirements

In support of the applied-for facilities, TransCanada provided a forecast of its maximum daily, seasonal, and annual requirements. The forecast was for the 24-month period commencing 1 November 1981 and showed an increase in winter maximum daily demand of 1914 thousand cubic metres or 624.0 million cubic metres over the period, that is, some 1.7 percent and 1.5 percent respectively. The Board, having considered all of the evidence presented, finds
TransCanada's forecast of requirements to be reasonable.

2.2 Facilities

applied for in the Western Section, 46.1 km would be needed to accommodate contracted requirements in the operating year 1982-83. The construction of the remaining 140.3 km would result in an excess capability on the Western Section of 4.8 percent based on the 1982-83 winter seasonal requirements. TransCanada stated that this level of advance capability was within the Company's "target" of a 5 percent level of advance capability. In order to maintain a balance between the capabilities of the Western and Central Sections, TransCanada proposed to relocate three existing mobile compressors to Stations 55, 75 and 86 in the Central Section.

Given TransCanada's system design methodology, advance capability at the levels proposed might be seen as somewhat high. However, the Company's projections indicated that this advance capability would be fully used in the operating year 1983-84 to meet projected growth in Canadian markets. The optimum level of advance capability is a matter of judgment, and, without commenting on possible future acceptance of TransCanada's "target", the Board is satisfied that under present circumstances the mainline facilities proposed for the Western and Central Sections are justified.

The application included a request for authorization to loop the first valve section of the Emerson Extension, a distance of 24.5 km, at a capital cost of \$18.974 million. TransCanada stated that 9.1 km of this loop was needed to ensure that it would be able to meet a special contractual commitment to Great Lakes and Midwestern to deliver the volume of gas shown in the application at a pressure of 5170 kPa gauge rather than the 3793 kPa gauge originally specified. The remaining 15.4 km would be installed in accordance with TransCanada's policy of looping a complete valve section.

The Board, in its examination of evidence presented by TransCanada in its application for the Emerson loop, has assumed that all additional facilities presently being applied for by Great Lakes for its system would be approved by F.E.R.C. and installed, and that volumes delivered by TransCanada to Midwestern would be equal to the maximum capability of its system. Under these circumstances, the Board has concluded that, without further facilities additions on either Great Lakes or Midwestern, the Emerson loop would, effectively, provide no additional system capability on these connecting facilities.

2.3 Cost of Facilities and Canadian Content

TransCanada estimated the capital cost of the applied-for facilities to be \$218,020,800 for the mainline and \$18,974,200 for the Emerson Extension, in 1982 dollars. This estimate was based on quotations for most major materials, and on recent construction experience. The Board finds the estimate to be reasonable, but should a certificate be issued, the Board would impose conditions requiring the Applicant to file with the Board its procedures for cost control.

TransCanada estimated that 93 percent of the project expenditures would be made in Canada, with 91 percent of the

expenditure for materials and 96 percent of the expenditures for installation retained in the country. The Board accepts this level of Canadian content as reasonable. Should a certificate be issued, the Board would require the Company to file after the completion of construction, a report detailing the level of Canadian content actually achieved, with an explanation of any significant variance from that estimated.

2.4 Financing

TransCanada indicated that the facilities would be initially financed through bank loans which would be refinanced with the proceeds of long-term financing when market conditions permit. The Board is satisfied with TransCanada's evidence as to its ability to finance the applied-for facilities on favourable terms.

CHAPTER 3

ENVIRONMENTAL, RIGHT-OF-WAY AND SOCIO-ECONOMIC MATTERS

3.1 Environmental Matters

The Board has considered the environmental evidence of the Applicant and is satisfied that the proposed facilities could be constructed and operated in an environmentally acceptable manner, given the implementation of effective mitigative measures.

The Board notes TransCanada's undertaking to accept in general the recommendations of its environmental consultants with respect to the construction of the proposed facilities. If a certificate were granted, the Board would require TransCanada to incorporate the recommendations of its consultants into its construction specifications and contracts. Following completion of construction, the Applicant would be required to submit a report describing the impact of construction on the environment, and assessing the effectiveness of the Company's policies, practices, recommendations and procedures for preventing or mitigating adverse environmental effects.

3.1.1 Water Crossings

The Board notes that TransCanada has previously crossed all of the rivers and streams affected by the proposed facilities, and thus is familiar with the environmental

concerns and the requirements for appropriate design, restoration and mitigative procedures.

TransCanada adopted the recommendations of its consultant with respect to the construction schedules for the two major water crossings, namely Swift Current Creek and the Assiniboine River. TransCanada indicated that it would prepare site-specific construction drawings for these two major crossings which would include the environmental recommendations. Should a certificate be granted, the Board would require the Applicant to obtain Board approval for these final design drawings and the construction procedures for Swift Current Creek and the Assiniboine River prior to construction of the crossings.

3.1.2 Agricultural Land

The maintenance of agricultural productivity, the stripping of topsoil, the disposal of subsoil, and problems related to compaction and erosion are major concerns along most of the loop sections. The Applicant described the practices and procedures by which these concerns would be addressed, including the role and responsibilities of the environmental inspectors.

The Board is satisfied with the environmental consultant's recommendations and considers that the implementation of those recommendations, in addition to the

Applicant's standard construction practices, would be adequate to minimize the impact of construction on agricultural land. The Board encourages TransCanada to continue soil compaction studies which would indicate whether significant compaction occurs on the working portion of the right-of-way during construction.

Should a certificate be issued, the Board would require the Applicant to monitor the effects of the construction on agricultural lands disturbed by pipeline construction for two full growing seasons following leave to open, and to report to the Board the results of that monitoring.

3.2 Right-of-Way Matters

3.2.1 Permanent and Temporary Right-of-Way

TransCanada indicated that it planned to make use of its existing rights-of-way where possible and to acquire additional land along those loop sections where the existing rights-of-way could not accommodate an additional line of pipe. The Applicant also stated that temporary working space would be required in some areas. TransCanada testified that it had obtained the majority of options for the Emerson Extension and that options were being negotiated for the Western Section looping. TransCanada stated that it did not anticipate any delays in its land acquisition process.

TransCanada testified that it had identified the requirements for additional permanent easements as well as temporary working rights. The Applicant undertook to file with the Board, prior to its filing of plans, profiles and books of reference, revised line lists setting out all of its requirements for additional easements and temporary working rights.

3.2.2 Pre-Construction Reports

TransCanada in its Landowner's Guide stated that a pre-construction report would be prepared in consultation with each landowner, outlining such items as type of farm operation, existing and currently planned drainage, and species and number of trees to be removed. The Applicant indicated that any reasonable provisions requested by the landowner would be included in the report. TransCanada stated that the information obtained in the pre-construction report would be added to the line list under the heading "Restrictions and Special Provisions". The provisions of the pre-construction reports would become part of the construction contract and the contractor would be bound by them.

TransCanada undertook to provide the Board with copies of all pre-construction reports and a continuous update of the special provisions included in the line list, up to

and including the time of the clean-up phase. This would ensure that the Board would be kept aware of any further requests made by the landowners as construction progressed.

3.3 Socio-Economic Matters

TransCanada provided the Board with regional socio-economic impact assessment studies which included a description and assessment of the impact on the construction areas in Saskatchewan and Manitoba.

Regional benefits that could accrue from this project would take the form of employment, business opportunities, and tax revenues. TransCanada stated that due to the short construction period in any given area, the benefits to the regions would be minor and that, overall, the regional socio-economic impact of the construction of the proposed facilities would be limited.

Should a certificate be issued, the Board would encourage TransCanada to take appropriate steps, in consultation with local communities, to increase benefits and to reduce adverse impacts that could result from the construction and operation of the proposed facilities.

DISPOSITION

Having regard to the foregoing considerations, findings and conclusions, and having taken into account all matters that appear to it to be relevant, the Board is satisfied that the mainline facilities applied for by TransCanada are and will be required by the present and future public convenience and necessity.

Therefore, the Board is prepared, subject to the approval of the Governor in Council, to issue a certificate of public convenience and necessity in respect of the following facilities, upon the conditions set out in Appendix 2:

Western Section:

45.9 km of loop between MLV's 7 and 9

26.1 km of loop between MLV's 9 and 10

27.0 km of loop between MLV's 16 and 17

26.4 km of loop between MLV's 17 and 18

26.3 km of loop between MLV's 21 and 22

25.0 km of loop between MLV's 30 and 31

9.7 km of loop between MLV's 34 and 36;

The Board agrees with TransCanada's proposal to relocate three mobile compressors to Compressor Stations 55, 75, and 86.

The Board finds that the proposed looping of 24.5 km on the Emerson Extension, on the basis of the evidence presented, is not required by the present and future public convenience and necessity. The corresponding part of the application is accordingly denied.

All of which is respectfully submitted.

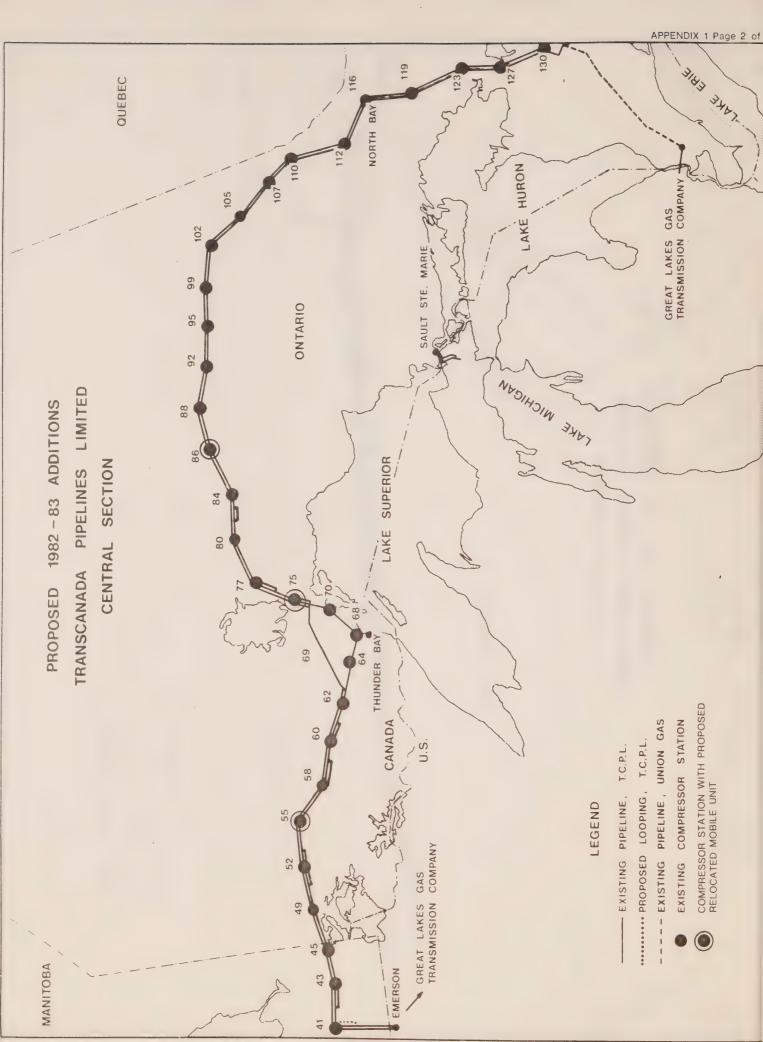
R.F. Brooks Presiding Member

J.R. Hardie Member

Member

Ottawa, Canada March, 1982





TERMS AND CONDITIONS

- 1. The pipeline facilities in respect of which this Certificate is issued ("the additional facilities") shall be the property of and shall be operated by TransCanada.
- 2. (1) TransCanada shall, unless otherwise authorized or ordered by the Board, cause the additional facilities to be designed, manufactured, located, constructed and installed in accordance with those specifications, drawings, and other information or data set forth in the Application, or as otherwise adduced in evidence before the Board or approved pursuant to these Terms and Conditions, except as varied in accordance with subcondition (2) hereof.
 - (2) TransCanada shall cause no variation to be made to the specifications, drawings, or other information or data referred to in subcondition (1) without the prior approval of the Board.
- 3. TransCanada shall, unless otherwise authorized or ordered by the Board, implement or cause to be implemented all of the policies, practices, recommendations and procedures for the protection of farmlands and the environment included in the Application, the environmental reports filed as part of the Application, the TransCanada PipeLines Construction Specifications 1981, the TransCanada PipeLines

Environmental Protection Practices Handbook - 1979, or as otherwise adduced in evidence before the Board or approved pursuant to these Terms and Conditions, and shall not cause or permit any change to the said policies, practices, recommendations and procedures without the prior approval of the Board.

- 4. TransCanada shall, at least 20 days prior to the commencement of construction of the additional facilities, file with the Board
 - (a) one copy of every contract, and every substantive amendment thereto, between TransCanada and the principal construction contractor for the construction of the additional facilities, with, at the option of TransCanada, prices and other proprietary information deleted,
 - (b) one copy of all construction drawings, and
 - (c) one copy of all documentation provided to the contractor by TransCanada prior to the submission of a bid by the contractor.
- of construction of the additional facilities, file with the Board a description of the plans and procedures for cost control on the project.

- 6. (1) TransCanada shall, at least 20 days prior to the commencement of assembly and installation of line-pipe or other components of the additional facilities, file with the Board
 - (a) the final specifications for line-pipe, pipeline components, and coating of the pipe,
 - (b) a listing of standards and engineering specifications to be applied in the construction of the additional facilities, and
 - (c) a map of the pipeline route indicating the population density at present, and as forecast in the year 1992, identifying by kilometre post reference the specifications for the pipe to be installed.
 - (2) TransCanada shall not commence the assembly and installation of line-pipe or other components of the additional facilities until the Board has approved the material filed under part (a) of subcondition (1).

- 7. (1) TransCanada shall file with the Board
 - (a) at least 20 days prior to the commencement of pipeline welding, detailed procedures for non-destructive testing of field welds of all line-pipe and pipeline components, including the method and frequency of testing, and
 - (b) at least 10 days prior to the commencement of pipeline welding,
 - (i) the welding procedures expected to be qualified for the project,
 - (ii) documentation supporting the adequacy of the welding procedures referred to in clause (i),
 - (iii) the requirements for the qualification of welding procedures and for the qualification of welders,
 - (iv) the standards for acceptability of weld defects,
 - (v) the required mechanical properties for welds, and the requirements for metallurgical testing of welds,
 - (vi) a description of the duties and authority of all personnel involved in the testing of welds and in the interpretation of test results, and the requirements for qualification of such personnel.

- (2) TransCanada shall not commence welding of the pipeline until the Board has approved the material filed under part (a) of subcondition (1).
- (3) TransCanada shall, unless otherwise authorized by the Board, file with the Board each week during the construction of the additional facilities a copy of the report completed by the radiographer with respect to each weld completed during that week.
- 8. TransCanada shall, unless otherwise authorized by the Board, file with the Board each month during the construction of the additional facilities, a report detailing the progress and current status of construction, and including a current construction schedule.
- 9. (1) TransCanada shall, at least 30 days prior to the commencement of site preparation for the Swift Current Creek and Assiniboine River crossings, respectively, file with the Board for approval
 - (a) the construction schedule for the crossing,
 - (b) detailed construction drawings and specifications for the crossing, and
 - (c) the provisions proposed for mitigating environmental impacts and for rehabilitation.
 - (2) TransCanada shall not commence site preparation for a crossing referred to in subcondition (1) until the Board has approved the material relating to that crossing filed under the subcondition.

- 10. TransCanada shall, at a date to be set by the Board, submit a report satisfactory to the Board describing the implementation of the policies, practices, recommendations and procedures referred to in Condition 3 including a detailed description of any deviation from, and an assessment of the effectiveness of the said policies, practices, recommendations and procedures.
- 11. TransCanada shall, both during and after the construction of the additional facilities, monitor the effects of the construction on farmlands and the environment, and shall,
 - (a) within one year after the commencement of operation of the additional facilities, and
 - (b) prior to 31 December of the year of the second complete agricultural growing season after the commencement of operation of the additional facilities, and
 - (c) at such additional times as the Board may direct, unless upon application by TransCanada in any case a later date is set by the Board, submit reports satisfactory to the Board describing the effects observed and the actions taken or to be taken to mitigate any long-term damage caused by the construction.
- 12. TransCanada shall, at a date to be set by the Board, submit a report satisfactory to the Board providing

- (a) a detailed breakdown of the costs incurred in the construction of the additional facilities, in the format used in Tab 7 under Tab "Facilities" of Exhibit 4A in the hearing, and setting forth actual versus estimated costs of the facilities authorized by this certificate, including the reasons for significant differences from estimates;
- (b) in respect of each cost category included in Schedules 6 and 7 of Tab 7 under Tab "Facilities" of the said Exhibit 4A, the percentage of Canadian content realized in comparison with that estimated and an explanation of any significant differences.
- 13. TransCanada shall cause the construction of the additional facilities to be completed on or before 31 December 1983, unless upon application by TransCanada a later date is set by the Board.



